



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2018-0690; Product Identifier 2018-CE-022-AD; Amendment 39-19761; AD 2019-20-08]**

**RIN 2120-AA64**

**Airworthiness Directives; Gulfstream Aerospace Corporation Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain Gulfstream Aerospace Corporation (Gulfstream) Model G-IV and Model GIV-X airplanes. This AD was prompted by a revision to the airworthiness limitations section (ALS) of the aircraft maintenance manual (AMM) based on fatigue and damage tolerance testing and updated analysis. This AD requires revising the maintenance or inspection program to incorporate updated inspection requirements and life limits that address fatigue cracking of principal structural elements. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Gulfstream Aerospace Corporation, Technical Publications Dept., P.O. Box 2206, Savannah, GA 31402-2206; telephone: (800) 810-4853; fax: (912) 965-3520; email:

pubs@gulfstream.com; Internet: <https://www.gulfstream.com/en/contact/support/#form>. You may view this service information at the FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148. It is also available on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0690.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0690; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The address for Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Ronald “Ron” Wissing, Airframe Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474-5552; fax: (404) 474-5606; email: [ronald.wissing@faa.gov](mailto:ronald.wissing@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

The FAA issued a supplemental notice of proposed rulemaking (SNPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Gulfstream Model G-IV and Model GIV-X airplanes. The SNPRM published in the *Federal Register* on April 2, 2019 (84 FR 12530). The FAA preceded the SNPRM with a notice of proposed rulemaking (NPRM) that published in the *Federal Register* on August 2, 2018 (83 FR 37771). The NPRM proposed to require revising the ALS in the AMM to incorporate

new inspections and life limits contained in Gulfstream Document No. GIV-GER-0008, Summary of Changes to the GIV Series and GIV-X Series Airworthiness Limitations, Revision B, dated March 12, 2018. The NPRM was prompted by a revision to the ALS of the AMM based on fatigue and damage tolerance testing and updated analysis.

After the FAA issued the NPRM, Gulfstream updated the life limits in the ALS and issued Gulfstream Document No. GIV-GER-0008, Summary of Changes to the GIV Series and GIV-X Series Airworthiness Limitations, Revision D, dated August 20, 2018. Revision D differs from Revision B in that the part number (P/N) for the rudder for Model GIV airplanes has been corrected to reflect P/N 1159CS30004, and new life limits for fuselage cockpit side post P/N 1159BM50025-5 and P/N 1159BM50025-6 have been added per Revision C. The SNPRM proposed to require the later revision of the service information. The FAA is issuing this AD to address the unsafe condition on these products.

### **Comments**

The FAA gave the public the opportunity to participate in developing this final rule. The FAA received no comments on the SNPRM or on the determination of the cost to the public.

### **Conclusion**

The FAA reviewed the relevant data and determined that air safety and the public interest require adopting this final rule as proposed.

### **Related Service Information under 1 CFR Part 51**

The FAA reviewed Gulfstream Document No. GIV-GER-0008, Summary of Changes to the GIV Series and GIV-X Series Airworthiness Limitations, Revision D, dated August 20, 2018. This document contains new and revised inspections and life limits pertaining to fatigue cracking of principal structural elements. This service information is reasonably available because the interested parties have access to it

through their normal course of business or by the means identified in the ADDRESSES section.

### **Costs of Compliance**

The FAA estimates that this AD affects 711 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

#### **Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Revise ALS and AMM	20 work-hours X \$85 per hour = \$1,700	Not applicable	\$1,700	\$1,208,700

The extent of damage found during the inspection may vary from airplane to airplane. The FAA has no way of determining the number of airplanes that might need repairs or the cost of such repairs for each airplane.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to small airplanes, gliders, balloons, airships, domestic business jet transport airplanes, and associated appliances to the Director of the Policy and Innovation Division.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2019-20-08 **Gulfstream Aerospace Corporation**: Amendment 39-19761; Docket No. FAA-2018-0690; Product Identifier 2018-CE-022-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to Gulfstream Aerospace Corporation Model G-IV airplanes, certificated in any category, serial numbers 1000 through 1535; and Model GIV-X airplanes, certificated in any category, serial numbers 4001 through 4363.

Note 1 to paragraph (c) of this AD: Model G-IV airplanes are also referred to by the marketing designations G300 and G400. Model GIV-X airplanes are also referred to by the marketing designations G350 and G450.

#### **(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 27, Flight Controls; 32, Landing Gear; 52, Doors; 53, Fuselage; 55, Stabilizers; 57, Wings; 71, Power Plant-General; and 78, Engine Exhaust.

#### **(e) Unsafe Condition**

This AD was prompted by a revision to the airworthiness limitations section (ALS) of the Model G-IV and Model GIV-X aircraft maintenance manuals based on fatigue and damage tolerance testing and updated analysis. The FAA is issuing this AD to detect and correct fatigue cracking of principal structural elements (PSEs). This unsafe

condition, if unaddressed, could result in reduced structural integrity of a PSE or critical component and lead to loss of control of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Airplane Maintenance Manual Revisions**

Within 12 months after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD), revise the ALS of your maintenance or inspection program (e.g., maintenance manual) to incorporate the airworthiness limitations specified in Gulfstream Document No. GIV-GER-0008, Summary of Changes to the GIV Series and GIV-X Series Airworthiness Limitations, Revision D, dated August 20, 2018, as applicable to your model and serial number airplane.

**(h) No Alternative Actions or Intervals**

After the maintenance or inspection program (e.g., maintenance manual) has been revised as required by paragraph (g) of this AD, no alternative inspections or intervals may be used unless approved as an alternative method of compliance in accordance with the procedures specified in paragraph (i) of this AD.

**(i) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Atlanta ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (j)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(j) Related Information**

For more information about this AD, contact Ronald “Ron” Wissing, Airframe Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474-5552; fax: (404) 474-5606; email: ronald.wissing@faa.gov.

**(k) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Gulfstream Document No. GIV-GER-0008, Summary of Changes to the GIV Series and GIV-X Series Airworthiness Limitations, Revision D, dated August 20, 2018.

(ii) [Reserved]

(3) For Gulfstream Aerospace Corporation service information identified in this AD, contact Gulfstream Aerospace Corporation, Technical Publications Dept., P.O. Box 2206, Savannah, GA 31402-2206; telephone: (800) 810-4853; fax: (912) 965-3520; email: pubs@gulfstream.com; Internet: <https://www.gulfstream.com/en/contact/support/#form>.

(4) You may view this service information at FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.



(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Kansas City, Missouri, on October 29, 2019.

Pat Mullen,  
Aircraft Certification Service  
Manager, Small Airplane Standards Branch, AIR-690

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